

OIB - C-130H Hercules #439 04/27/15 Science Report

Aircraft:

[C-130H Hercules #439](#) ([See full schedule](#))

Date:

Monday, April 27, 2015

Mission:

OIB

Mission Location:

Kangerlussuaq, Greenland

Mission Summary:

Mission: Southwest Coastal B (priority: high)

This is a new mission, one of two (with Southwest Coastal A) designed to mirror the southeastern coast-parallel coverage in the southwest, along 2011 LVIS flight lines. This particular flight captures the higher-altitude portion of this part of the ice sheet. We also fly an out-and-back pattern on the Kangiata Nunaata Sermia glacier.

Weather images and forecasts showed generally fair weather over most of the Greenland Ice Sheet today, but careful perusal of the imagery also showed evidence of ice fog in the area just inland of Kangerlussuaq and to the north. Ice fog is difficult to see in infrared imagery because it is the same temperature as the surface, and also hard to see in 3 micron (water vapor) imagery because it is not made up of water vapor, but ice crystals. It was barely visible this morning in visible imagery, and its presence was implied in the IR imagery by a slight variation of the texture in the image. The same imagery showed that the southwest was clear. We enjoyed clear skies and smooth air all day, but we did see the fog at the surface to our north, just east of Kangerlussuaq. We were gratified to bag our last high-priority mission in the south today, but we had hoped to get the baseline-priority IceSat-2 Central mission instead. That area was in the ice fog today, and is forecast to get worse tomorrow, our last fly day in Kangerlussuaq.

All instruments performed normally today.

We conducted a ramp overflight at 1500' AGL.

Data volumes:

ATM: 27 Gb

CAMBOT: 86 Gb

DMS: 110 Gb

Ku-Band Radar: 202 Gb

MCoRDS: 2.0 Tb

Narrow Swath ATM: 34 Gb

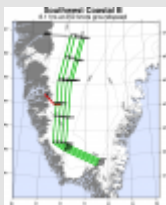
NSERC Onboard Data: TBD

Snow Radar: 202 Gb

total data collection time: 7.7 hrs

Images:

Map of Southwest Coastal B



[Read more](#)

Fjords near Nuuk



[Read more](#)

South Greenland nunataks



[Read more](#)

Submitted by:

John Sonntag on 04/27/15

Related Flight Report:

C-130H Hercules #439 04/27/15

Flight Number:

Southwest Coastal B

Payload Configuration:

OIB

Nav Data Collected:

No

Total Flight Time:

8 hours

Submitted by:

Luci Crittenden on 04/27/15

Flight Segments:

From:	BGSF	To:	BGSF
Start:	04/27/15 10:12 Z	Finish:	04/27/15 18:12 Z
Flight Time:	8 hours		
Log Number:	151002	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Southwest Coastal B mission completed today. Next data flight scheduled for tomorrow, April 28.		

Flight Hour Summary:

	151002
Flight Hours Approved in SOFRS	334.4
Total Used	297.6
Total Remaining	36.8

151002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
03/12/15	ATF	Check	1.5	1.5	332.9
03/13/15	PTF - GPS	Check	2	3.5	330.9
03/13/15	PTF - Radar #1	Check	0.8	4.3	330.1
03/13/15 - 03/14/15	PTF - Radar #2	Check	4.5	8.8	325.6
03/16/15	PTF - Radar #3	Check	2.4	11.2	323.2

03/17/15	Transit	Transit	7.8	19	315.4
03/19/15	Nansen Gap	Science	7.4	26.4	308
03/24/15	Sea Ice - Zigzag East	Science	8.2	34.6	299.8
03/25/15	Sea Ice North Pole Transect ? Thule	Science	8.2	42.8	291.6
03/26/15	Sea Ice - Laxon Line	Science	9.2	52	282.4
03/27/15 - 03/28/15	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2
03/29/15 - 03/30/15	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3
03/30/15 - 03/31/15	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2
04/01/15	Sea Ice - South Basin Transect	Science	8.8	86	248.4
04/03/15	Sea Ice - South Canada Basin	Science	7.4	93.4	241
04/06/15	OIB Transit from BGTL- BGSF	Transit	3.3	96.7	237.7
04/08/15	Helheim-Kangerdlussuag	Science	8	104.7	229.7
04/09/15	K-EGIG Summit	Science	8.3	113	221.4
04/10/15	Southeast Glaciers 01	Science	8	121	213.4
04/11/15	East Glaciers 01	Science	8	129	205.4
04/13/15	Southeast Coastal	Science	7.7	136.7	197.7
04/14/15	Helheim-Kangerdlussuag Gap B	Science	7.9	144.6	189.8
04/17/15	Umanaq B	Science	7.5	152.1	182.3
04/18/15	Southwest Coast A	Science	8.1	160.2	174.2
04/20/15	Penny 01	Science	6.3	166.5	167.9
04/21/15	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
04/22/15	Southeast Flank 01	Science	7.6	182.8	151.6
04/23/15	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
04/24/15	Geikie 02	Science	8.3	200.3	134.1
04/25/15	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
04/27/15	Southwest Coastal B	Science	8	215.2	119.2
04/28/15	Southeast Glaciers 02	Science	7	222.2	112.2
04/29/15	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
04/30/15	ATM Laser Repair Checkout	Science	2.3	227	107.4
05/01/15	NW Coastal A	Science	7.2	234.2	100.2
05/05/15	IceSat-2 North / CryoSat- 2 SARIn	Science	8.2	242.4	92
05/06/15	North Glaciers 01	Science	8.2	250.6	83.8
05/07/15	Devon-Barnes 01	Science	7.8	258.4	76
05/08/15	Zigzag West	Science	7.2	265.6	68.8
05/11/15	Northwest Glaciers 01	Science	7.8	273.4	61
05/12/15	North-Central Gap 02	Science	8.1	281.5	52.9
05/15/15	North-Central Gap 01	Science	7.3	288.8	45.6
05/21/15	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
05/22/15	Transit - Bangor, ME to WFF	Transit	2.3	297.6	36.8

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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